

CLAIMS

What is claimed is:

Sub 1
2
3
4
5
1 A method comprising:
2 receiving an interrupt;
3 converting said interrupt into an upstream memory write interrupt; and
4 converting said upstream memory write interrupt into a front side bus
5 (FSB) interrupt transaction.

1 2. The method as in claim 1, wherein said interrupt is generated by a
2 peripheral component interconnect (PCI) device.

1 3. The method as in claim 2, wherein said FSB interrupt is received by a
2 processor.

1 4. A method comprising:
2 receiving a message signaled interrupt (MSI) interrupt;
3 forwarding said MSI interrupt; and
4 converting said MSI interrupt into an FSB interrupt transaction.

1 5. The method as in claim 4, wherein said MSI interrupt is generated by a
2 PCI device, and wherein said FSB interrupt is received by a processor.

1 6. The method as in claim 5, wherein said FSB interrupt is received by a
2 processor.

1 7. A method comprising:
2 receiving a hardware signal;
3 converting said hardware signal into an upstream memory write
4 interrupt; and
5 converting said upstream memory write interrupt into an FSB interrupt
6 transaction.

1 8. The method as in claim 7, wherein said hardware signal is generated by a
2 PCI device, and wherein said FSB interrupt is received by a processor.

1 9. The method as in claim 8, wherein said FSB interrupt is received by a
2 processor.

1 10. An apparatus comprising:
2 a chipset, configured to receive an interrupt and for converting said
3 interrupt into an FSB interrupt transaction.

1 11. The apparatus as in claim 10, said chipset further comprising at least one
2 of an I/O controller hub (ICH), P64H, AGP device.

1 12. The apparatus as in claim 11, further comprising an I/O component of an
2 advanced programmable interrupt controller (IOxAPIC) configured to convert
3 said interrupt into an upstream memory write interrupt.

1 13. The apparatus as in claim 12, said chipset further comprising a HUB
2 interface coupled on a first end to said IOxAPIC and coupled on a second end to
3 a MCH, wherein said memory controller hub (MCH) configured to convert said
4 upstream memory write interrupt into a FSB interrupt transaction.

1 14. The apparatus as in claim 10, wherein said interrupt is generated by a PCI
2 device, and wherein said chipset is coupled to a processor.

1 15. The apparatus as in claim 10, wherein said interrupt is a MSI interrupt.

1 16. The apparatus as in claim 15, said chipset further comprising a HUB
2 interface coupled on a first end to an ICH and coupled on a second end to a
3 MCH, wherein said ICH configured to forward said MSI interrupt to said HUB
4 interface, and wherein said MCH configured to convert said MSI interrupt into a
5 FSB interrupt transaction.

1 17. The apparatus as in claim 16, wherein said MCH configured to ensure at
2 least one data pipe of a HUB interface is flushed upstream before propagating an
3 interrupt upstream.

1 18. The apparatus as in claim 16, wherein said MCH configured to receive an
2 end of interrupt (EOI) from a processor and broadcast said EOI to at least one

3 downstream HUB interface IOxAPIC generating at least one level mode
4 interrupt.

1 19. An apparatus comprising:

2 an MCH configured to redirect at least one interrupt based on task priority
3 information.

1 20. The apparatus as in claim 19, wherein said task priority information is
2 downloaded by a processor into said MCH having a task priority register (TPR)
3 and FSB XTPR update transactions.

1 21. The apparatus as in claim 19, wherein said interrupt is an upstream
2 memory write interrupt.

1 22. The apparatus as in claim 19, wherein said interrupt is an IPI interrupt.

1 23. The apparatus as in claim 19, wherein said interrupt is marked as lowest
2 priority re-directable, and redirected to a lowest priority register.

1 24. A method comprising
2 redirecting at least one interrupt based on task priority information.

1 25. The method as in claim 24, wherein said interrupt is an upstream memory
2 write interrupt.

1 26. The method as in claim 24, wherein said interrupt is an IPI interrupt.

1 27. The method as in claim 24, wherein said interrupt is marked as lowest
2 priority re-directable, and redirected to a lowest priority register.

1 28. A method comprising:

2 providing preferred ordering of at least one XTPR update transaction and
3 at least one interrupt to be redirected.

1 29. The method as in claim 28, further comprising ensuring valid information
2 is used for an interrupt redirection when an XTPR update transaction and an
3 interrupt occur about the same time.

1 30. The method as in claim 29, further comprising providing support for said
2 XTPR update transactions to update at least one XTPR register.

Add
A1